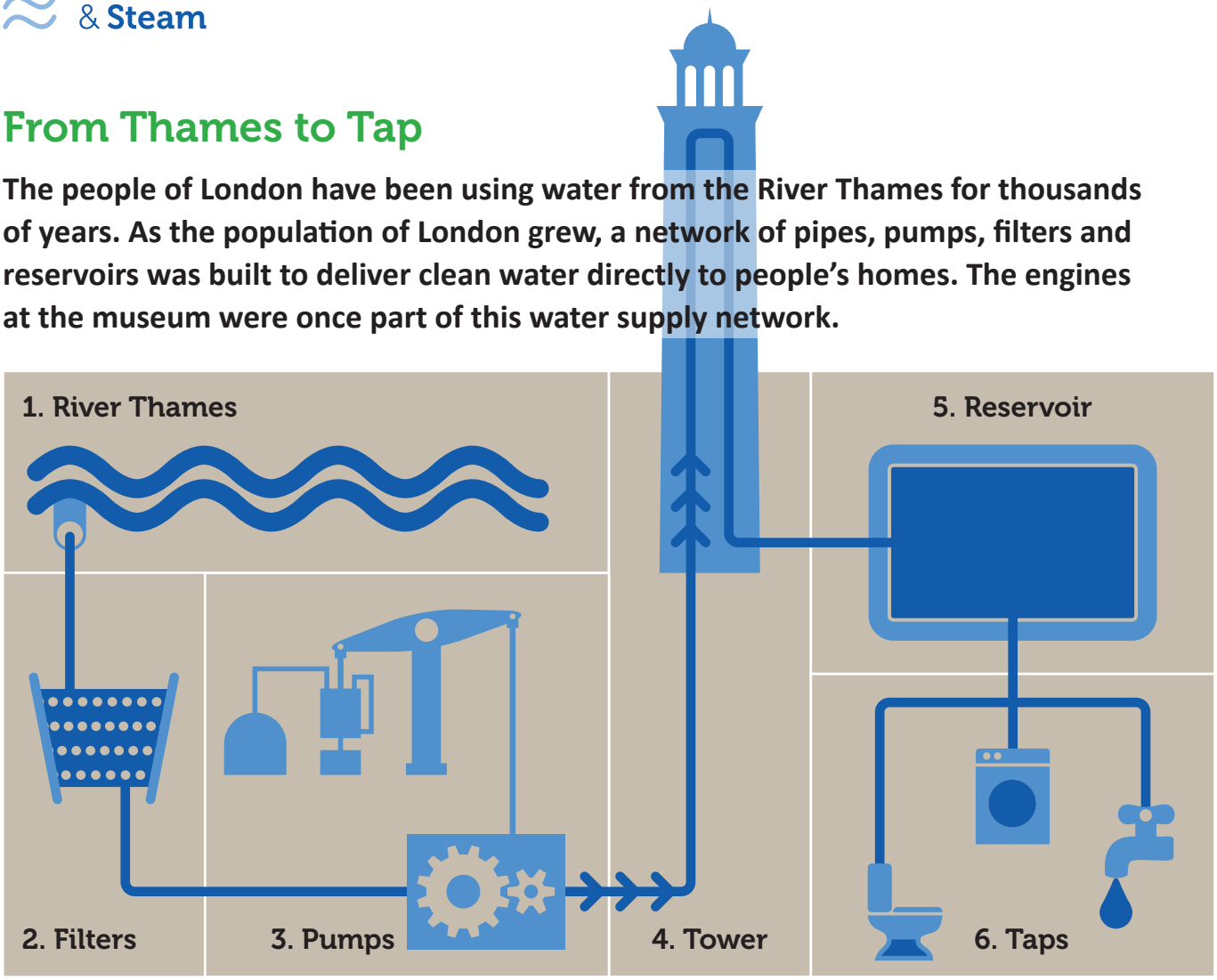
London Museum of Water & Steam

From Thames to Tap

The people of London have been using water from the River Thames for thousands of years. As the population of London grew, a network of pipes, pumps, filters and reservoirs was built to deliver clean water directly to people's homes. The engines at the museum were once part of this water supply network.



1. The River Thames

Water was taken from the River Thames at Hampton and then pumped to Kew Bridge Pumping Station.

TALKING POINT ***Why not use water from the River Thames at Kew?*** *The Thames at Kew Bridge is tidal, which means the water there is quite dirty. The Thames at Hampton is non-tidal and much cleaner, so the intake for Kew Bridge Pumping Station was switched to Hampton in 1855.*

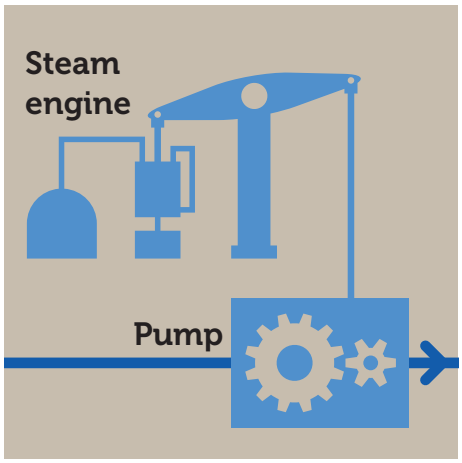
LOOK OUT FOR...

Guess how big the **filter beds** were. Look out for the **photographs** in the Waterworks Gallery at the Museum to see if you were right.

2. The Filters

Although the water from the Thames at Hampton was cleaner, it still needed to be filtered to make it safe to drink. When it reached Kew Bridge the river water was passed though giant filter beds containing sand to remove dirt and the bacteria that can cause disease. After filtering, the water was ready to drink.

London Museum of Water & Steam



3. The pumping engines

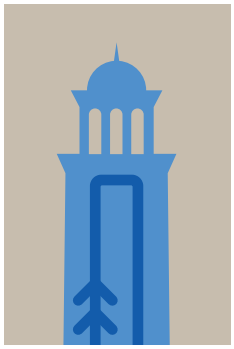
After the water was filtered it was ready to be pumped to homes and businesses across West London.

The giant steam engines provided the power to send the water on its way.

LOOK OUT FOR...

The **model water pumps** in the Waterworks Gallery. There's a prize for anyone who can pump water to the top of the tube.

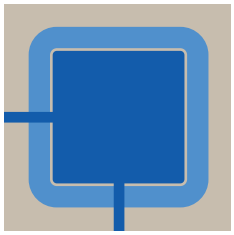
4. The tower



The giant engines at Kew Bridge pumped clean water to the top of the standpipe tower. The standpipe tower has two important jobs:

Protecting the pumps: Constant water pressure is important for the engines to work safely. If a mains water pipe were to burst, the drop in water pressure would make the engines pump too hard and too fast. This risk was avoided by first pumping water to the top of the tower to ensure constant pressure for the engines.

Easier distribution: The top of the standpipe tower is higher than the reservoir it supplies. Water can run downhill to the reservoir, thanks to the power of gravity.



5. The reservoir

Water from Kew Bridge was sent to and stored in a large covered reservoir 4 miles away at Campden Hill, near Holland Park. It was important that the reservoir was located above the areas that needed water; so once again, gravity could do its job.

TALKING POINT ***Clever storage***

The amount of water that people use varies a lot during different parts of the day, so it would be impossible for the engines at Kew Bridge to pump exactly the right amount of water all of the time. Instead, the water was pumped to a reservoir where it was stored ready for use. As the reservoir emptied, the engines at Kew pumped more water to refill it.

6. The taps

Water from the covered reservoirs at Campden Hill ran downhill to the taps and toilets across West London.

The water from your tap today follows the same network of pipes, pumps, filters and reservoirs. However, the pumps are now electric and the filtration process has improved. London's water supply has come a long way!